

## **Method and Apparatus for Etch Endpoint Detection**

### **ABSTRACT OF THE DISCLOSURE**

Broadly speaking, an invention is provided for monitoring a plasma optical  
5 emission. More specifically, the present invention provides a method for monitoring the  
plasma optical emission through a variable aperture to detect an endpoint of a plasma  
etching process without interferences that could lead to false endpoint calls. The method  
includes collecting optical emission data from a plasma through an aperture defined by  
moveable members. The moveable members are capable of varying a configuration of the  
10 aperture. The method also includes holding the moveable members at a particular time to  
cause the aperture to maintain a fixed configuration. The method further includes detecting  
a specific perturbation in the plasma optical emission while holding the moveable  
members.